Curiosity for Investigators

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We are all investigators

- **Perception**
  - A way of regarding, understanding, or interpreting something.

- **Reality**
  - The state of things as they actually exist.
What traits are most critical for the success of an investigator?

- The ability to learn
- A hunger for knowledge
- Going out and finding answers
- Independently pursuing new and unique ideas
- Persistence in education

People who have a beast inside them that feeds on learning and knowledge.
CURIOSITY
THE DESIRE TO KNOW
Information Gap Theory

Knowledge Point

What You Know

Opportunity for Curiosity

Reference Point

What You Don’t Know

Deprivation
Curiosity as a Positive Trait

- Psychology tells us that curiosity is...
  - ...positively correlated with intelligence
  - ...positively correlated with memory recall
  - ...regulated by a strong countering trait
The Jack and Diane Problem
Curiosity and Experience

![Graph showing the relationship between time and experience.](image-url)
Curiosity and Experience

- High C, Low E
- Low C, Low E
- High C, High E
- Low C, High E

Jumpy
Excels
Ineffective
Apathetic
CURIOSER
Can we measure it?

- Physiological via fMRI:

- Psychological Testing:
  - Curiosity and Exploration Inventory
  - Limited and Not Situationally Specific
Are Security Practitioners More Curious?

Curiosity Composite by Profession

- **Medicine**: 3.1
- **Law**: 3.121
- **Technology**: 3.411
- **Security**: 3.712

n=275 (approx.)
Which specialization attracts/develops more curious people?

![Curiosity Composite by Specialization](image)

| Specialization       | Curiosity Composite
<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Industry</td>
<td>3.712</td>
</tr>
<tr>
<td>Generalists</td>
<td>3.739</td>
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<tr>
<td>NSM</td>
<td>3.943</td>
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<td>IR</td>
<td>3.74</td>
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<tr>
<td>Pen Testing</td>
<td>3.667</td>
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</tbody>
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n=200 (approx.)
Growing Curiosity

Curiosity peaks when you believe you are equally likely to know or not know something.
Curiosity in Daily Life

You: What did do last night?

Me: I went to a concert at MB stadium

Me: I went to a concert at MB stadium and saw Garth Brooks
Curiosity in an Investigation

This file doesn’t look familiar.

The file creates a scheduled task
Your Awareness Reference Point

Novice  Apprentice  Expert
Reference  Reference  Reference
Knowledge  Knowledge  Knowledge

TIME
Rapid Gap Awareness (RGA)
Feed the Beast - Optimizing Curiosity

- Ask and Encourage Questions
  - Fear is often about not knowing what to ask
  - Recognize the limiting function of fear

- Manage Cognitive Resources
  - Intense focus on one task rapidly depletes resources
  - Switch between ~3 work streams per day

- Gain exposure to new rabbit holes
  - Curiosity is sparked by assimilation of different ideas
  - Infosec + [History | Psychology | Math | ???]
THANK YOU!

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